

Notice of Allowability

Application No.

10/064,177

Examiner

Brian Jelinek

Applicant(s)

RAFFY ET AL.

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/20/2005.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 19 June 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Response to Amendment

The Examiner respectfully submits in response to the amendment received on 4/20/2005 of application no. 10/064,177 filed on 6/19/2002 in which claims 1-20 are currently pending. **This application is allowed.**

Allowable Subject Matter

Claims 1-20 are allowed.

Regarding claim 1, the reason for allowance is as follows: the prior art does not disclose or fairly suggest a direct converter comprising a chrominance calculator, coupled to both the input buffer and to the luminance buffer, receiving at least two red pixels and at least two blue pixels within the input block and receiving the luminance block of luminance pixels from the luminance buffer, the chrominance calculator calculating a first chrominance value from an average of the at least two blue pixels and from the luminance block of luminance pixels and a second chrominance value from an average of the at least two red pixels and from the luminance block of luminance pixels, in combination with all other limitations in the claim.

Regarding claim 13, the reason for allowance is as follows: the prior art does not disclose or fairly suggest a method for directly generating YUV pixels from red (R), green (G), blue (B) pixels in an un-interpolated pattern comprising: generating a U component from the at least two B pixels and from the average Y value while ignoring R and G pixels from the input block, reading at least two R pixels from the input block; and generating a V component from the at least two R pixels and from the average Y value

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while ignoring B and G pixels from the input block, in combination with all other limitations in the claim.

Regarding claim 17, the reason for allowance is as follows: the prior art does not disclose or fairly suggest a color-space converter comprising: receiving luminance components from the luminance calculator means, generating a U chrominance component for the center pixel location within the input block by averaging the at least two B pixels and averaging at least 9 luminance components from the luminance storage means for pixel locations within the input block, and for generating a V chrominance component for the center pixel location within the input block by averaging the at least two R pixels and averaging at least 9 luminance components from the luminance storage means for pixel locations within the input block, in combination with all other limitations in the claim.

Regarding claim 2-12, 14-16, and 18-20, the reason for allowance is as follows: the claims depend from allowable base claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wantanabe (U.S. Pat. App. No. 2003/0007082) discloses Bayer data conversion to YUV.

Deshon et al. (U.S. Pat. No. 5,237,402) discloses median filter interpolation.

Lin (U.S. Pat. No. 6,628,330) discloses RGB conversion to YUV.

Lin et al. (U.S. Pat. No. 6,642,962) discloses RGB conversion to YUV.

McIntyre et al. (U.S. Pat. No. 6,734,921) discloses conversion between YUV and YcrCb.

Hamilton, Jr. et al. (U.S. Pat. No. 5,596,367) discloses averaging green values.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Jelinek whose telephone number is (571) 272-7366. The examiner can normally be reached on M-F 8:00 am - 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached at (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

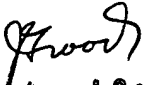
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4/25/2005


James J. Groody
Supervisory Patent Examiner
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